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(54) Title: **LOW-K DIELECTRIC MATERIAL**

(57) Abstract: The present invention relates to thin films suitable as dielectrics in integrated circuits and for other similar applications and to methods for the production thereof. In particular, the invention concerns thin films comprising at least partially cross-linked siloxane structures obtainable by hydrolysis of one or more silicon compounds of the general formula $R_1-R_2-Si-(X_1)_3$, wherein X_1 is a leaving group, R_2 is a cycloalkyl having from 3 to 16 carbon atoms, an aryl having from 5 to 18 carbon atoms or a polycyclic alkyl group having from 7 to 16 carbon atoms, and R_1 is a substituent of R_2 selected from alkyl groups having from 1 to 4 carbon atoms, alkenyl groups having from 2 to 5 carbon atoms, alkynyl groups having from 2 to 5 carbon atoms, and aromatic groups having 5 or 6 carbon atoms, each of said groups being optionally substituted, and Cl and F.

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